PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES UPGRADATION OF EXISTING PEDESTRIAN SIGNAL CONTROL TO APS/ CPS AT THE INTERSECTION OF US 40 (PULASKI HWY) AND MD 781 (DELANCY ROAD) IN CECIL COUNTY.

APS AND CPS WILL BE ADDED FOR THE WEST AND SOUTH LEGS OF THE INTERSECTION AND ADA COMPLIANT RAMPS WOULD BE INSTALLED AT THE INTERSECTION. THE EXISTING TRAFFIC SIGNAL INDICATIONS WOULD BE UPGRADED TO NEW LED TRAFFIC SIGNAL INDICATIONS.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA SIX PHASE, FULLY -ACTUATED MODE, WITH THE US 40 APPROACHES RUNNING CONCURRENTLY. EXCLUSIVE LEFT TURN PHASES ARE PROVIDED FOR BOTH APPROACHES OF US 40 (PULASKI HWY). AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS WEST LEG OF US 40 (PULASKI HWY). THE MD 781 (DELANCY ROAD) AND BAKER'S LANE OPERATE WITH A SPLIT PHASE. THE PEDESTRIAN PHASE ACROSS BAKER'S LANE IS CONCURRENT. RIGHT TURN OVERLAP IS PROVIDED FOR MD 781 (DELANCY ROAD). US 40 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

EQUIPMENT LIST FOR CONTRACT NO. XX4435185

A. EQUIPMENT TO BE SUPPLIED BY THE SHA. QUANTITY UNIT DESCRIPTION ITEM

9570	56	SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN
3310	4 .	EΑ	W11-2 (36"X36") ADVANECE PEDESTRIAN CROSSING SIGN
	4	, EA	W16-7p (24"X12") LEFT DIAGONAL ARROW SIGN
	4	EΑ	R10-3(1) (9" \times 15") PEDESTRIAN PUSH BUTTON SIGN
	1	FΛ	R3-5 (R) ($30"X36"$) RIGHT THRN ONLY SIGN

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

	ITEM	QUANTITY	UNIT	DESCRIPTION
	1003	2	ΕA	MAINTENANCE OF TRAFFIC
4	2001	24	CY	CLASS 2 EXCAVATION
ı	2002	1	CY	TEST PIT EXCAVATION
	5004	460	LF	5 INCH HEAT APPLIED WHITE OR YELLOW PERM PVMT LINE MARKINGS
	5005	1000	LF	REM OF EXISTING PERM PVMT LINE MARKINGS ANY WIDTH
	5006	600	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
	5007	50	LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
ı	6001	325	LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
	6002	1450	SF	5 INCH CONCRETE SIDEWALK
	6003	80	SF	DETECTABLE WARNING SURFACE
İ	8001	1	EΑ	2 WIRE CENTRAL CONTROL UNIT
	8007	4	EΑ	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
	8008	4	EΑ	BREAKAWAY PEDESTAL POLE (ANY SIZE)
	8013	4	EΑ	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
	8014	35	EΑ	LED SIGNAL HEAD MODULES (ANY SIZE)
	8021	1	EΑ	REM & DISPOSE MAT & EQUIP PER ASSIGN
	8032	275	LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES — BORED
	8034	40	LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES — TRENCHED
	8036	56	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
	8038	325	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
	8045	3	EΑ	FURNISH AND INSTALL ELECTRICAL HANDHOLE
	8050	5	EΑ	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
l	8054	825	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
l	8056	875	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
	8057	375	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

NOTE: ALL EQUIPMENT THAT IS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #2 ARE AS FOLLOWS:

MR. ROBERT KIEL ASSISTANT DISTRICT ENGINEER - TRAFFIC (410) 778-3061

MR. TERRY WRIGHT ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 778-3061

MR. BARRY CLOTHIER ASSISTANT DISTRICT ENGINEER - UTILITIES (410) 778-3061

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR. (410) 787-7630 CHIEF, TRAFFIC OPERATIONS

MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF. TRAFFIC OPERATIONS (410) 787-7631

MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS (410) 787-7652

MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS (410) 787-7676

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MS. DARLENE EIDE SUPPLY OFFICE SIGNAL SHOP WAREHOUSE (410) 787-7668

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Y
G $| \lhd G - | \lhd G - | \lhd G - |$ PHASE 1 & 5 ⊲G- $\lhd \mathsf{G}-$ PHASE 1 & 5 CHANGE MAY CHANGE TO PHASE 1 & 6, 2 & 5 OR 2 & 6 1 & 5 CHANGE DW | DW | DW | DW | $| \lhd G - | \lhd G - | \lhd G -$ PHASE 1 & 6 \lhd R- \lhd R- $| \triangleleft G - | \triangleleft G - | \triangleleft G -$ PED CLEARANCE G ⊲R- $\triangleleft R \lhd R-$ R-G⊳ | DW | DW |FL⁄DW|FL⁄DW $\triangleleft Y - \mid \triangleleft Y - \mid \triangleleft Y - \mid$ 1 & 6 CHANGE G \lhd R- $\triangleleft R \lhd R | \triangleleft_{\mathsf{R}^{-}} | |_{\triangleleft_{\mathsf{R}^{-}}}$ $\lhd \mathsf{G}-$ PHASE 2 & 5 $\lhd R-$ ⊲G--G G $\lhd\mathsf{G}-$ 2 & 5 CHANGE R $\triangleleft Y - \qquad \triangleleft Y - \qquad$ <\Y--G G R DW DW DW DW PHASE 2 & 6 \lhd R- \lhd R-G $\triangleleft R-$ ⊲R- \lhd R-G 2 & 6 CHANGE $\triangleleft R \triangleleft R-$ PHASE 3 DW DW DW DW $\triangleleft R \lhd$ R-3 CHANGE $\triangleleft R- \mid R \mid$ $\lhd R-$ DW DW DW DW PHASE 4 $\triangleleft R-$ ⊲R- $\lhd R \triangleleft R-$ R | DW | DW | DW | DW $\triangleleft R-$ Y DW DW DW DW 4 CHANGE R PHASE 4 ALT $\lhd R \lhd$ R-| WK | WK | DW | DW | $\triangleleft R-$

 \lhd R-

| FL/R | FL/R | FL/Y | FL/Y

 $\triangleleft R \triangleleft R-$

PHASE CHART

 $\lhd R-$

⊲R−

FL/R

FL/Y

 \triangleleft R-

WIRING DIAGRAM

 \lhd R-

 $\lhd R-$

 $\triangleleft R-$

FL/R

 \triangleleft R- \mid \triangleleft R- \mid

PED CLEARANCE

4 ALT CHANGE

FLASHING

-B,F,X -B,C,D,F,G,H,X

—C,G,×

___C,G,X

OPERATION

WIRING KEY

R

R

RR

FL/R

A,B,C,D > 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

J > 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

G |FL/DW|FL/DW| DW | DW

FL/R | FL/R | DARK DARK DARK DARK

 \times \ \ \ 1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE

+ > GROUND ROD

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY

US 40 (PULASKI HWY.) AT MD 781 (DELANCY RD.) TRAFFIC SIGNAL MODIFICATION ELKTON, MARYLAND

SHEET NO. 3 OF 3

TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN

SCALE N.T.S. ADVERTISED DATE 02-02-09 CONTRACT NO. XX4435185

DESIGNED BY COUNTY CECIL DRAWN BY LOGMILE <u>07004017.05</u> TIMS NO. JI78 TOD NO. __

DRAWING

BRUDIS & ASSOCIATES, INC Consulting Engineers 9220 Rumsey Road; Suite 110 Columbia, Maryland 21045 www.brudis.com

-A,B,C,D,E,

F,G,H,J